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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,839	02/25/2005	Kazuyuki Oku	OKU7	2202

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EXAMINER	
HENRY, MICHAEL C	

ART UNIT	PAPER NUMBER
1623	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/525,839	OKU ET AL.	
	Examiner	Art Unit	
	Michael C. Henry	1623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-17 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) 12 is/are allowed.

6)☒ Claim(s) 1-11, 13-17 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 09/27/05.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-17 are pending in application

Information Disclosure Statement

The information disclosure statement filed complies with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. It has been placed in the application file and the information referred to therein has been considered as to the merits.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8-10, 13-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "high molecules" in claim 8, 10, 13, 15 render the claims indefinite. More specifically, it is unclear what constitute a high molecule as opposed to one that is not high. Similarly, the term "shaped product made from high molecules" in claim and 15 render the claims indefinite. More specifically, it is unclear what constitute a high molecule as opposed to one that is not high. Also, it is unclear what products are shaped products as opposed to those that are not especially since products generally have shapes. In addition, the terms "daily good and chemical industrial product" in claim 10 and 15 render the claims indefinite since it is unclear what products are considered daily good or chemical industrial product as opposed to those that are not.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Kubota et al. (EP 1284286 A1).

In claim 1, applicant claims a radical reaction inhibitory agent, comprising as an effective ingredient a cyclotetrasaccharide represented by cyclo{→ 6)-α-D-glucopyranosyl-(l→ 3)- α-D-glucopyranosyl-(l→ 6)-α-D-glucopyranosyl-(l→ 3)-α-D-glucopyranosyl-(1→ } or a mixture of said cyclotetrasaccharide and its saccharide derivative(s). Kubota et al.disclose applicant's agent or composition comprising the cyclotetrasaccharide represented by cyclo{→ 6)-α-D-glucopyranosyl-(l→ 3)- α-D-glucopyranosyl-(l→ 6)-α-D-glucopyranosyl-(l→ 3)-α-D-glucopyranosyl-(1→ } (see abstract and fig.3 4). It should be noted that applicant's agent is the same as applicant's agent and should inherently possess the same property of being a radical reaction inhibitory agent. In claim 2, applicant claims the radical reaction inhibitory agent of claim 1, which further contains trehalose and/or maltitol. Kubota et al. disclose applicant's agent or composition which further comprises maltitol (see example B-9, page 63). In claim 3, applicant claims the radical reaction inhibitory agent of claim 1, which further contains a radical scavenger. Kubota et al. disclose applicant's radical reaction inhibitory agent which further contains a radical scavenger (sodium L-ascorbate) (see example B-18, page 65). Claim 4 is drawn to the radical reaction inhibitory agent of claim 3, wherein said radical scavenger is one or

more members that includes antioxidants. Kubota et al. disclose applicant's radical reaction inhibitory agent which contains an antioxidant (sodium L-ascorbate) (see example B-18, page 65). Claim 5 which is drawn to the radical reaction inhibitory agent of claim 1, which further contains one or more members that includes inorganic salts is also anticipated by Kubota et al. since Kubota et al.'s agent or composition also further contains the inorganic salt (sodium chloride) (see example B-18, page 65). In claim 6, applicant claims the radical reaction inhibitory agent of claim I, which contains said cyclotetrasaccharide in an amount of at least 1 w/w %, on a dry solid basis. Kubota et al. disclose applicant's the radical reaction inhibitory agent which contains said cyclotetrasaccharide in an amount greater than least 1 w/w %, on a dry solid basis (see example B-18, page 65). Claims 7-10 which are drawn to said composition which comprises an unsaturated compound and the radical reaction inhibitory agent, wherein the unsaturated compound includes vitamins, wherein the vitamins include vitamin E, and derivatives and wherein the composition includes food products, are also anticipated by Kubota et al., since Kubota et al. composition also contains vitamin E acetate (see example B-18, page 65). Claim 11 is drawn to a method for inhibiting a radical reaction, comprising incorporating the radical reaction inhibitory agent of claim 1 into a composition comprising an unsaturated compound. Kubota et al. disclose applicant's method for inhibiting a radical reaction, comprising incorporating said radical reaction inhibitory agent into a composition comprising an unsaturated compound (vitamin acetate) (see example B-18, page 65). It should be noted the claim only requires said incorporation of said agent into composition comprising an unsaturated compound. It should be noted that applicant's claim to foreign priority over Japan 2002-256069

(08/30/2002) has not been perfected, since an English translation of the said foreign priority document is not filed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Latamer (US 2,487,931) in view of Kubota et al. (EP 1284286 A1).

In a method for making a first edible product comprising a first edible component and a fat, the method comprising mixing said fat with said first edible component, the improvement wherein a cyclotetrasaccharide is at least in part substituted for said fat, said cyclotetrasaccharide comprising cyclo{→ 6)-α-D-glucopyranosyl-(1→ 3)- α-D-glucopyranosyl-(1→ 6)-α-D-glucopyranosyl-(1→ 3)-α-D-glucopyranosyl-(1→ } or a mixture of said cyclotetrasaccharide and its saccharide derivative(s).

Latamer discloses a method for making an edible product comprising an edible component and a fat, the method comprising mixing said fat with said edible component (non-crystalline powdered material) and adding sugar (see claims 2-8). Latamer disclose that different

% of fat the other ingredients can be used (see claims 2-8) and that modification is possible in the composition of the product as well as the method (see col. 6, line 73 to col. 7, line 2).

The difference between applicant's claimed method and the method disclosed by Latamer is that applicant's composition substitutes at least in part, the sugar or cyclotetrasaccharide represented by cyclo{→ 6)-α-D-glucopyranosyl-(l→ 3)- α-D-glucopyranosyl-(l→ 6)-α-D-glucopyranosyl-(l→ 3)-α-D-glucopyranosyl-(1→ } for the fat.

Kubota et al. disclose the cyclotetrasaccharide or sugar, cyclo{→ 6)-α-D-glucopyranosyl-(l→ 3)- α-D-glucopyranosyl-(l→ 6)-α-D-glucopyranosyl-(l→ 3)-α-D-glucopyranosyl-(1→ } can be added to foods (see page 13, lines 7-17; see also claims 39-40).

It would have been obvious to one having ordinary skill in the art, at the time the claimed invention was made in view of Latamer and Kubota et al., to have used the method of Latamer to comprising mixing Latamer's edible component (non-crystalline powdered material) together with a fat and to add a sugar such as the cyclotetrasaccharide suggested by Kubota et al. and to adjust the ratio of the components (such as the fat) to prepare an edible product or food, since Latamer disclose that different % of the fat and the other ingredients can be used and that modification is possible in the composition of the product as well as the method.

One having ordinary skill in the art would have been motivated, in view of Latamer and Kubota et al., to use the method of Latamer to comprising mixing Latamer's edible component (non-crystalline powdered material) together with a fat and to add a sugar such as the cyclotetrasaccharide suggested by Kubota et al. and to adjust the ratio of the components (such as the fat) to prepare an edible product or food, since Latamer disclose that different % of the fat

and the other ingredients can be used and that modification is possible in the composition of the product as well as the method.

Allowable Subject Matter

The examiner has found claims 12 to be unobvious over the prior art of record and therefore to be allowable over the prior art of record. Dependent claims 13-15 may be allowable provided that the 112 rejections of these claims are overcome. The present invention relates a radical reaction inhibitory agent, comprising as an effective ingredient a cyclotetrasaccharide represented by cyclo{→ 6)-α-D-glucopyranosyl-(l→ 3)- α-D-glucopyranosyl-(l→ 6)-α-D-glucopyranosyl-(l→ 3)-α-D-glucopyranosyl-(1→ } or a mixture of said cyclotetrasaccharide and its saccharide derivative(s) and to method of using said agent. Though the compound of the present invention are similar to the compounds of the prior art, the method of claim 12 is is not suggested in the prior art, nor is obvious over the prior art. In particular, the prior art does not disclose inhibiting a radical reaction, comprising incorporating the said radical reaction inhibitory agent into a composition comprising an unsaturated compound in order to prevent an ingredient in said composition other than said unsaturated compound from being denatured by a peroxide of an unsaturated compound, formed by radical reaction.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Henry whose telephone number is 571-272-0652. The examiner can normally be reached on 8.30am-5pm; Mon-Fri. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia A. Jiang can be

reached on 571-272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael C. Henry

6/11/07

Shaojia Anna Jiang, Ph.D.
Supervisory Patent Examiner
Art Unit 1623

June 9, 2006.